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LAKE CARRIERS' ASSOCIATION.

To consider and take action upon all general questions relating to the navigation and carrying business of the Great Lakes, maintain necessary shipping offices and in general to protect the common interests of Lake Carriers, and to improve the character of the service rendered to the public.

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DEVELOPMENT OF THE PACIFIC COAST TRADE.

The attention which the Orient has been given by the powers during the past few years has already had an appreciable effect in stimulating trade between the Pacific coast and the countries of the Far East. The transcontinental railways and steamship companies are making extensive preparations for a big trans-Pacific trade. Indeed, more than one line is being established to operate between Liverpool and the Pacific coast by way of the Suez Canal and the Indian and Pacific Oceans. It is not so many years ago since the Canadian Pacific Railway almost monopolized the trans-Pacific trade. Its fleet comprised by far the best steamships on the Pacific. The present year will witness a great expansion of the carrying trade between America and the Orient. Each of the transcontinental railways now has, or is acquiring, its own line of steamships. The Southern Pacific operates the Pacific mail steamship service from San Francisco. The Northern Pacific's steamers run from Tacoma. The vessels of the Great Northern sail from Seattle, while those of the Canadian Pacific have their terminus in Vancouver. The Great Northern hands over its traffic to three steamers of a Japanese line, but before long it will have a fleet of its own. The vessels of this fleet are now under construction at New London, Conn., and they are to be veritable leviathans of the deep. They will be of 20,000 tons register and 33,000 tons displacement, or just 10,000 tons more displacement than the new Atlantic greyhound Deutschland. The carrying capacity of these ships will be tremendous, and the holds such that 28,000 tons of coal can be carried. The dead-weight carrying capacity at normal draft is stated at 20,000 tons. Passengers will also be carried, and excellent accommodations are being provided for nearly 1,000 persons in three classes.

The vessels will have twin screws, triple expansion engines and the Niclausse type of water tube boilers. Although designed primarily for cargo carriers, they will have a speed of 14 knots an hour and carry over 4,000 tons of coal in bunkers. The vessels are designed to carry cattle, chilled or frozen meat in refrigerating chambers, fruit or any kind of cargo that may appear for transportation.

The Northern Pacific has secured a fleet of seven large steamships which will operate from Liverpool to Tacoma, a route which embraces about three quarters the distance around the world. The president of the Canadian Pacific has announced that another steamship will be added to the company's Pacific fleet.

GOVERNMENT FLOATING DRY DOCK FOR ALGIERS, LA.

The large floating dry dock which the Mary'and Steel Co., Sparrow's Point, Md., has constructed for the United States government, to be located at Algiers, La., is now awaiting the passing of the hurricane season in order to be towed to its destination. It is expected to undertake the trip about October 1st, when several powerful ocean-going tugs will be employed. The dock will be able to lift a 15,000-ton battleship and have the floor of the deck two feet above water, but with the floor even with the water line it can lift an 18,000-ton ship. The dock is 525 ft. in length over all, and its breadth is 126 ft. 2.7 ins. The width between the sides is 100 ft. The entire height of the sides, from their bottoms, which are submerged, to the tops, is 55 ft. The depth of the pontoons, or what might be called the hulls of the dock, is 17 ft. 6 ins. The greatest draught of the dock is 49 ft. 6 ins. There are three pontoons, which form its floor, and also, with the sides, give it buoyancy,. The middle pontoon is the largest, being 242 ft. long and the end pontoons are each 141 ft. in length. The walls are 395 ft. long and are 9 ft. in width at the top and 13 ft. at the bottom. The pontoons and sides are divided into 40 watertight compartments, which enable the dock to be completely under the control of the dock master, who can make it assume any position required to dock a vessel. It has 261 keel blocks, upon which the vessel rests in the dock and they are movable, so that they can be readily adjusted. The weight of the steel in the dock is 5,865 tons, and the weight of the dock equipment is 1,000 tons, making a total weight of 6,865 tons.

WEATHER BUREAU EXHIBITS AT THE PAN-AMERICAN EXPOSITION.

The Weather Bureau exhibit at the Pan-American Exposition is located in the northeast corner of the north pavilion, Government Building, and is adjacent to and forms a part of the official exhibit of the United States Department of Agriculture. The exhibit can best be described under four general groups, or sections, as follows:

1. A collection of meteorological instruments and apparatus of latest improved designs, some in actual operation as employed at the more important telegraphic reporting stations of the Weather Bureau; kites and kite outfits as used in ærial investigations.

2. A collection of storm-warning flags and lanterns, with supports and towers, as used on lakes and sea-coasts for giving warnings of the approach of storms dangerous to shipping; model tower and weather flags.

3. A complete set of framed charts and publications of the Bureau, presenting clearly and graphically the climatic conditions of the United States; miscellaneous photographs of clouds, lightning, etc.

4. A map-printing and forecast section in daily operation.

The general arrangement of this section of the exhibit is shown, a view taken from one of the main aisles of the building, but does not include several instruments and apparatus on both the right and left hand.

For measuring atmospheric pressure the following are displayed:

Normal mercurial barograph, designed by professor C. F. Marvin. Records automatically and continuously the varying pressure of the air by means of a mercurial barometer tube suspended on a balanced scale beam. Aneroid barographs of the Richard pattern, such as are in actual use at 150 stations of the Weather Bureau. Non-recording mercurial barometers of the standard pattern, in cases of special design, together with two sample barometers having sections cut out of the cisterns to show details of construction. For the special benefit of the lake maritime interests there are also displayed samples of the best grades of compensated aneroid barometers, such as the patented Watkin, and others of English and French manufacture. These samples are loaned for exhibit by Mr. Julien P. Friez, of the Belfort Observatory, Baltimore, Md.

SUMMARY OF LAKE FREIGHTS.

The Bureau of Statistics, Treasury Department, gives the following summary:

All freight rates, except those on grain, remained firm so far this season.

In ore rates there has been no change. The rates of 60 cents per ton from Escanaba, 70 cents per ton from Marquette, and 80 cents per ton from Duluth to Chicago and points west of Erie, with the usual addition of 5 cents per ton to Buffalo, have prevailed all through the season.

Rates to Buffalo and the lower lakes on grain have fluctuated considerably, owing to the poor demand for tonnage by shippers. Corn from Chicago ranged 1¾ to 1½ and 1⅜ cents per bushel. From Milwaukee the rate paid was 1¼ cents per bushel.

Wheat from Chicago was shipped at 1½ cents and 1⅝ cents per bushel, declining in the latter part of the month to 1½ cents per bushel. From Duluth the rate was 2½ cents per bushel.

The established rates from the lower lakes on coal of 35 cents per ton to head of lakes and 40 cents per ton to Lake Michigan ports held firm, though 50 cents per ton was paid to Milwaukee and South Chicago.

During the month the shippers of lumber attempted to force the rate of $2.50 per 1,000 feet down to $2.25, but the vesselmen transferred their boats to ore cargoes and thereby compelled the lumbermen to pay the rate of $2.50 per 1,000 feet.

THE IROQUOIS LENGTHENED.

A splendid piece of shipbuilding work has just been completed at the Erie basin, New York. It was nothing more nor less than the cutting and lengthening of the S. S. Iroquois, a vessel of 2,944 tons. The forward half was pulled 48 feet forward in the dock, and the gap filled in with frames and plating to match the old hull—the whole job being completed in the brief space of 21 days. It is estimated that the additional buoyancy afforded by the new section will enable the ship to take 2,000 bales of cotton more in her hold at the same draught than before. The Iroquois was built at the yard of William Cramp & Sons, Philadelphia, Pa., in 1888. Her dimensions are as follows: Length between perpendiculars, 280 feet; molded beam, 46 feet; molded depth, 28 feet 6 inches; tonnage, 2,944 tons. The hull is built of steel. The frames, which are spaced two feet apart, are 5 in. x 3 in. x 10.7 pounds; the reverse bars are 3 in. x 3½ in. x 7.7 pounds; the stringers are 4 in. x 5 in. x 15 pounds, and the floor-plating 29 in. x 21½ pounds

THE ground tackle of the White Star Atlantic liner Celtic consists of three patent stockless anchors weighing 7¾ tons each. One steam anchor, 2,000 pounds; one kedge anchor, 1,000 pounds; 300 fathoms of 3⅔-inch stud link chain cable, links 20½ inches long. Cable shackles 23 inches long and made for two pins 5 inches by 3 inches. Anchor shackles 2 feet by 2 inches, pins 6 inches by 4 inches. These are the largest cables ever made in Great Britain for other than light vessels and larger by 1-16 of an inch than those being made by the Lebanon Chain Works for the two big steamships building at New London, Conn.

AROUND THE LAKES

CHICAGO.

Special Corresponaence to The Marine Record.

During the season the steamer Manitou has made thirty-six round trips from Chicago to Mackinac and one to Buffalo covering in all 29,019 miles and carrying 18,000 people.

Capt. J. C. Ricketson, Milwaukee, who was best known in vessel circles on the Great Lakes as manager, some time ago, of the Inter-Ocean Transportation Co.'s vessels, died at his home on Saturday last. He was seventy-one years old.

Reports are being received regularly of small sail tonnage being in trouble at various points on Lake Michigan. It is no good enumerating each case at the present, as some of them may not be so serious as now looked for, while others may be more so.

Permission has been granted the Barrys by the commissioner of navigation to change the name of the steamer Hartford, which was known as the Terry when purchased from the government by them, to Charles H. Hackley. The new name is in honor of the Muskegon millionare and philanthropist.

In compliance with the request of the committee having the memorial exercises in charge, all tugs and vessels on the Chicago river will stop for five minutes on Thursday afternoon, wherever they may be. This order was given by the Great Lakes Towing Co., and all other vessel interests fell into line. It will be the first time in the history during the season when there has been a complete cessation of navigation on the river.

The wreck of the abandoned schooner G. Ellen is still floating about in the lake and forms a dangerous derelict which passing ships are likely to run into at night. When last seen the vessel was directly on the Grand Haven course from Milwaukee. First mate George Snider, of the Nyack, says there was no good reason for abandoning the vessel. Her deckload had been thrown overboard and in the lightened trim the vessel was out of the water so that no seas came aboard.

The Economist announces that the Pennsylvania Railroad Co. is preparing to build a big grain elevator at South Chicago on the line of the Calumet Western Railroad, a new switching road that has entered South Chicago and unites the P. F. W. & C. and Panhandle tracks. An ordinance has been adopted vacating Muskegon avenue between One Hundred and Fourteenth and One Hundred and Fifteenth sts., and the South Chicago City Railway Co. is expected to abandon the same avenue, on which it now has a franchise. A slip will then be made to admit vessels of the largest size, at the head of which the elevator will be constructed.

The largest grain elevator in the world—capacity 4,000,000 bushels—is to be built at Weehawken, N. J., by the Chicago firm of Geo. M. Moulton & Co., architects and engineers, for the New York Central & Hudson River Railroad on its West Shore line. I learn from the American Elevator and Grain Trade that the foundation of the new elevator is to be finished by the first of the coming year, and one-half of the elevator, with 2,000,000 bushels' capacity, is to be completed by Oct. 1, 1902. The entire cost of the elevator will be $1,800,000, and of freight sheds adjoining $200,000. In addition, Moulton & Co. have the contract for remodeling a big elevator at Weehawken, N. J., at a cost of $250,000, so that vessels may be loaded from it. The elevator will be of fireproof construction and cover an area of 35,750 square feet. The frame will be of steel and the walls of brick and hollow tile. The bins will be of steel, 72 feet in depth, and instead of being cylindrical in shape will be square. The motive power for operating the machinery will be electricity furnished from a central station. The enterprise is one that will mark a new era in the shipment of grain from the port of New York, where the present plan of loading grain from lighters is slow and expensive.

THE keel of what is believed to be the largest wooden schooner ever built is being laid in an East Boston shipyard. About 800 tons of timber will be put in the new vessel. She is owned by a Boston syndicate.

DETROIT.

Special Correspondence to the Marine Record.

Steel is now arriving at Bay City for three steamers to be built at the plant of the American Ship Building Co.

It is said that Capt. Washington Harrow, of Port Huron, will receive $900 for releasing the stranded whaleback 202 from the beach above Port Huron.

The Canadian steamer Donnacona is in drydock for the repair of damage to her bow and bottom, caused by hitting a lock in the Canadian Sault canal on her first trip down.

A new chart, in colors, of Detroit river, has just been issued and is now on sale at the U. S. Lake Survey Office, 33 Campau Building, in charge of W. L. Fisk, Major, Corps of Engineers, U. S. Army.

The Drydock Engine Works is building four new boilers for the Michigan Central car ferry Transport. They will be placed in the boat during the winter. The boilers now in the boat have been in service for twenty-two years.

The engine and boiler of the wrecked steamer Baltimore have been purchased by the Barry Bros., of Chicago, and will be recovered as soon as possible. The intention is to place it in the steamer Empire State, now at West Bay City for partial reconstruction.

A dispatch from Lewes, Del., announces that the steam yacht Rapidan, owned by R. H. McCormick, of Chicago, is a total wreck on the Delaware capes, a point north of the Mariners' Graveyard. The Rapidan was originally the Catherine C., having been built at Detroit for Michael Cudahy, of Chicago.

The following meterological observations are furnished by the office of the U. S. Weather Bureau, Detroit, for the week ending Sept. 17: Prevailing wind direction for the week, S. W.; highest velocity, 38 miles S. W. on the 15th; mean temperature for the week 65; highest temperature 79 on 12th; lowest 58 on 16th.

The fact that the sinking of one small vessel at the Limekiln Crossing, in Detroit river, can block navigation to and from the upper and lower lakes proves how necessary it is that the work of dredging now being carried on at that point should be pushed until a wider and deeper channel has been provided.

The Detroit and Cleveland Navigation Co. announces a change in the schedule of its up shore division. The City of Mackinac will make the last trip of the year on her present schedule leaving Detroit on September 25. The City of Alpena will leave for the last trip of the year on September 27. When she returns to Detroit she will be laid up for the year. Thereafter the City of Mackinac will take the scheduled time of the City of Alpena, and will continue upon it until the close of navigation. She will leave Detroit Mondays at 5 p. m. and Fridays at 9:30 a. m.

The Gilchrist steamer Hiawatha was seized at Amherstburg Friday morning by Deputy Sheriff Rumball, of Windsor, on a warrant issued by J. F. Hare, district deputy registrar of the exchequer court of Canada. Henry Weineman, jr., of Detroit claims $2,500 damages as a result of a collision between the Hiawatha and the schooner J. F. Card on Lake Huron during a fog on May 10, 1900. The Card is now a wreck on the Canadian shore of Lake Huron, where she was blown by one of the fall storms last year. The owners of the Hiawatha gave bonds and she was released.

A large fleet of down-bound boats has been delayed in the river here for the past three days because of low water at the Lime Kiln Crossing caused by the westerly gales. All along the river, just below Detroit, the big fellows have been lying at anchor in the stream waiting for the water to come up, and as many as forty boats have been here at one time. The signals at the coal dock of the Pittsburg Coal Co., at Sandwich, have shown a mean depth of only 17 feet at the crossing since Sunday, and none of the big fellows have ventured down since they saw that sign. On Wednesday morning the signals showed 18 feet 6 inches and many of the ore and grain laden got under way, and by noon were in Lake Erie.

United States Engineer Eben S. Wheeler, of Detroit, formerly general superintendent of the St. Mary's canal, is at the "Soo" investigating charges made by H. D. Bains against Supt. Donald M. MacKenzie. Bains was assistant superintendent and last fall was suspended by MacKenzie for alleged disobedience of orders. He has remained suspended ever since, although he asked for an investigation. Col. Lydecker, of Detroit, investigated the case. At the hearing, which Bains declared was one-sided, he countered on MacKenzie by preferring several charges of a more or less serious nature, affecting MacKenzie's official conduct. The matter rested until Bains, becoming tired of waiting, placed his charges on paper, and backed by affidavits, sent them to the Secretary of War. It is understood that several official heads are in danger of decapitation, although the Secretary of War will be the final arbiter.

The late General William Ludlow was known in the army for his utter fearlessness and integrity. It is related that, while he was in charge of some public improvement, during his service with the Corps of Engineers, U. S. A., then Col. Ludlow, a contractor who wanted some favor quietly slipped a $1,000 note across the table to the general with whom he was conversing. The general opened a drawer and took out a box of cigars, one of which he offered to the contractor. The cigar was accepted, General Ludlow's action being taken as an indication that the bribe would be received in the proper spirit. The contractor's surprise may, therefore, be imagined when he saw the general take the bill, calmly light it at the grate and after allowing it to burn almost to his fingers, extend it with the remark: "Have a light, sir." The contractor dropped his cigar and bolted from the office. He was paralyzed. He had found an honest man where he hadn't expected him to be.

BUFFALO.

Special Correspondence to The Marine Record.

Capt. Thos. Donnelly, of Kingston, has again been distinguishing himself; this time he volunteered to take charge of a lifeboat and rescued several castaways in distress off Toronto, Lake Ontario.

The steamer City of the Straits made the last trip of the season to Buffalo this week. She left for Detroit via Cleveland, where she will be placed in winter quarters after a very busy and successful season.

The passenger steamer Miami, which ran all summer in the service of the Northern Steamship Co. from Mackinaw Island to Duluth, arrived here on Tuesday on her way back to the coast, where she will join the Plant line to Florida.

It has at last been realized that if anthracite is to be sent forward by lake, the sooner brisk shipping begins the better, and to this end chartering is more than lively. The rate remains fairly steady at 50 cents to Lake Michigan and 35 cents to Lake Superior, Toledo 40 cents, and Port Colborne, 25 cents.

The passenger steamer North West was ordered into winter quarters on arriving here on Sunday. During the winter her boilers are to be replaced with new ones, and for the reason that the present set of steam generators have given so much trouble the steamer is retired from service sometime earlier than was first planned.

The Buffalo Forge Co., of Buffalo, N. Y., has been incorporated with a capital stock of $1,000,000, by W. F. Wendt, H. W. Wendt and Elizabeth Wendt, all of Buffalo, the incorporators. The company has been doing business for many years and is well known as a large manufacturer of forges and heating and ventilating devices.

The storm on the upper lakes which has prevailed all week has seriously checked the movement of coal. It is not believed that the present shortage of available tonnage will result in any advance in the rate as relief will come with the arrival of the down bound fleet. All the retail trestles and the majority of the elevators will suspend business Thursday.

J. Alexander Lord, a clerk in the Bureau of Statistics at Washington, was here recently looking over the method of handling freights and the mode of securing records of amounts carried with a view of making recommendations for the improvement of the service. The present form of manifests has received some attention. Changes are likely to be made so as to ensure obtaining more reliable statistics on which to base commercial data.

W. M. Lowrie, the general passenger agent of the Northern Steamship Co., has announced that the steamer North Land is now making her last trip for the season. She will arrive at Buffalo on September 24, and will immediately go into winter quarters. The season has been an extraordinary prosperous one, and the new route has proved satisfactory. It is too early yet to tell what effect this year's business will have upon the adoption of a schedule for next season.

THE Lake Torpedo Boat Co., incorporated under the laws of New Jersey, with a capital of $1,000,000, will begin operations next month, in Bridgeport, in the construction of a new torpedo boat, which, it is asserted, will revolutionize modern sea warfare. The officers of the company are Simon Lake, president; Henry J. Miller, secretary, and L. B. Miller, treasurer.

DULUTH-SUPERIOR.

Special Correspondence to the Marine Record.

Deeds recently filed at West Superior show that J. M Longyear, a Marquette man, is buying heavily of the Weyerhauser copper lands. Over 40,000 acres have already been transferred.

The movement of grain from the head of the lakes has become the prospective feature in the freight market, with the ruling condition in the ore trade as a close second. The indications now are that a record-breaking movement of wheat down from Duluth will be made. The shippers have already overbid the ore rates for future cargoes and there is a strong belief that 2¼ cents will be paid early this week, if some charters are not already made on that basis.

It is reported that there is a plan to start in operation the old plant at Duluth, Minn., built by the Ironton Structural Steel Co. and now belonging to the bankrupt estate of John E. Searles, and the West Superior (Wis.) plant. The former plant has an open-hearth furnace and two trains of rolls making structural material. Most of the machinery in the latter plant has been removed. The plant originally contained two 4-ton converters and two trains of rolls.

The heavy gales on Lake Superior during the last few days have held vessels in shelter and are as a result long overdue here, judging from the time they passed the "Soo." There are so many behind their sailing schedules that it is impossible as yet to get a line on the identity of the steamer which was reported as foundering off Eagle River on Monday. The steamer Harlem came in with her cargo shifted somewhat, and her captain reports that he saw many craft seeking shelter from the blow.

At a directors' meeting of the Duluth, Mesabi & Northern Railroad Co., the resignation of F. T. Gates as president and director was accepted and W. J. Olcott was elected president and A. B. Wolvin director. The resignation of George D. Rogers of New York, as assistant treasurer, was accepted and Charles E. Scheide of New York was elected to this office. The resignation of Edward V. Gary, of New York assistant secretary, was accepted, and Charles D. Fraser, of Pittsburg, was chosen to fill this vacancy. This action marks the formal retirement of Rockefeller officials in accordance with control of the road assumed some time ago by the management of the United States Steel Corporation.

Colonel S. M. Mansfield, United States engineer of the Northwestern division, which includes Lake Superior when on a tour of inspection recently to the head of the lakes said: "The Superior-Duluth harbor is one of the biggest, most commodious and advantageous harbor that I have ever seen. In spite of its size it does not appear that any part of it, except perhaps up the river, is at all remote or difficult to reach. The head of the lakes has grown wonderfully since I was last here, over fifteen years ago, but what I have observed more particularly, is the enormous development of lake commerce at this port. The expansion of navigation interests here has been really wonderful and must impress any man who has been away from here for a considerable time and then returns.

The wind which prevailed on Lake Superior, and in fact through all the upper lake region for the entire week, gave the barge Holley, of the Pittsburg Steamship Co., a hard experience. She was bound up in tow of the Sir William Fairbairn, when abreast of Eagle Harbor the tow line parted and as the steamer had another consort to take care of no assistance could be given the castaway barge. It seems, from the report of her master, that she came to anchor before going on the reef and thus saved herself. She had first, however, let go both anchors. When the Holley brought up she had drifted forty miles and had been severely buffeted by the seas. The Holley was pulled from the reef at Eagle river, and continued on her way to Two Harbors, after the crew had returned to her. The Holley was in the trough of the sea from 3 o'clock Sunday morning to 4 o'clock Monday morning. Only her anchors holding saved the boat from being a total loss on the reef towards which she was too close for safety.

Joseph Sellwood, of Duluth, refers to the discrepancy between the statistics of iron ore production in 1900 as gathered by John Birkinbine, of Philadelphia, for the Division of Mineral Resources, U. S. Geological Survey, and the figures showing shipment collected each year by The Iron Trade Review. The production in Michigan in 1900, as the official figures show, was 9,926,727 tons; in Minnesota, 9,834,399 tons. The shipments in the same year were 9,456,355 tons for Minnesota, and 9,072,099 tons for Michigan. Minnesota thus leads by nearly 400,000 tons in shipments, but is nearly 100,000 tons behind in production. With 60 per cent. of its properties mined on the open-cut plan, a large percentage of production in Minnesota stops short with the close of the navigation season, whereas the Michigan mines continue through the year. The argument is made that the amount of ore sent to market each year is the proper guage of the position of a State in the iron ore industry, and on this basis Mr. Sellwood claims pre-eminence for Minnesota.

CLEVELAND.

Special Correspondence to The Marine Record.

People living along the lake shore east of Cleveland were interested in watching a group of waterspouts on Monday.

The C. & B. and D. & C. lines will make no more daylight trips. The night trips will be made until December.

The passenger steamer Urania ends her season between here and Canada this week. The service has been more successful this year than ever before and the route is becoming more favorable as it is more widely known.

On Thursday night the Cleveland & Buffalo Transit Co. will take a party of one hundred Odd Fellows, living in Boston, from Cleveland to Buffalo. They have been attending the grand lodge meeting in Indianapolis, and are on their way home.

The light-ship Kewaunee, purchased by the Lake Carriers' Association for South-east Shoal, Lake Erie, is all ready to be placed on her station and will proceed there under her own steam. Capt. McKay, representing the Lake Carriers', examined the boat and her equipment and believes that she is in the best shape possible. He believes the lights may be depended upon for Thursday night. He will stay on the boat to insure good service until Saturday, when he will return to Cleveland.

The launching of the new steel steamer, William S. Mack, which was to have taken place at the Lorain yards of the American Ship Building Co., has been postponed until Saturday. The boat was to have been launched Wednesday but owing to the funeral of the late president it was postponed. The boat is all ready, however, and could have been launched at the appointed time. The Mack is owned by W. F. Mack, of Cleveland, and is named after Mack's father. She is 366 feet long and 45 feet beam.

The life-saving station was inspected this week by Capt. Chapman, superintendent of the 10th district, whose headquarters are in Buffalo. During the inspection Capt. Motley brought up the question of a new boat for the station, and it is possible that a recommendation will immediately be made that such a boat be sent here for fall use. The inspection passed off creditably, and, as is well known in local circles, the Cleveland station is one of the best conducted in the service. Capt. Motley and his splendid crew render invaluable service to the community, and they are thorough in their duties as protectors of the port.

There will be no work done on the coal and ore docks at Lake Erie ports Thursday. A meeting of the dock managers was held and a resolution recommending that all the work on the dock be suspended the day of the president's funeral was adopted. Telegrams were received from managers at Toledo, Buffalo and other ports that were not represented at the meeting stating that they would do whatever was agreed on by the local managers. The managers of some of the docks had issued orders to close the docks down before the meeting was called. This will have a tremendous effect on the shipping business but the occasion demands the cessation of all but the most necessary labor.

Reports of the iron ore movement shows that during August there were received at the principal Lake Erie ports 3,602,005 tons. During August, 1900, the movement amounted to 2,911,622, showing therefore an increase for the month of August this year of 690,383. The report also shows that the total shipments to Sept. 1 was 12,263,436 tons, as against 12,366,022 tons up to Sept. 1, 1900, showing therefore that the shippers are still 102,586 tons behind what they were a year ago. When it is considered that at the opening of August the shippers were 792,969 tons behind the movement to that same date a year ago the same totals will easily be reached by the close of this month, and the 20,000,000 ton mark be the season's work.

IT has been computed by geographers that if the sea were emptied of its waters and all the rivers of the earth were to pour their present floods into the vacant space, allowing nothing for evaporation, 40,000 years would be required to bring the water up to its present level.

LAUNCH OF THE MINNETONKA.

The steel steamer Minnetonka was successfully launched from the Cleveland yards of the American Ship Building Co. on Saturday last in the presence of a large number of sightseers. The Minnetonka, built for the American Navigation Co., was ordered last January by eastern capitalists represented by Charles E. & W. F. Peck, of New York. The new boat was christened by Miss Marion Wetmore, daughter of Mr. R. C. Wetmore, secretary and treasurer of the shipbuilding company.

The Minnetonka, which will engage in trans-Atlantic service, will carry 7,000 tons of cargo with about 1,000 tons fuel capacity on 25½ feet draught at 10 knots speed. She is 450 feet over all, 430 feet keel, 43 feet beam and 35 feet deep. She will have four Scotch-type boilers fitted with Howden draft, and triple expansion engines, capable of developing about 3,000 horse-power. The new ship will cost about $450,000 when completed. Finishing work will be rushed as fast as possible, and she will be ready to start for the coast the latter part of next month or early in November.

The second steamer building for the American Navigation Co., which is a sister ship of the Minnetonka, will be launched this fall, but she will not be ready to sail for the coast until next spring.

LETTERS AT DETROIT MARINE POST OFFICE

SEPTEMBER 18th, 1901.

To get any of these letters, addressees or their authorized agents will apply at the general delivery window or write to the postmaster at Detroit, calling for "advertised" matter, giving the date of this list and paying one cent.

Advertised matter is previously held one week awaiting delivery. It is held two weeks before it goes to the Dead Letter Office at Washington, D. C.

Anst John, Curry
Allen G. T., Siemens
Baker Wm., Preston
Burk Conrad, Maida
Benjamin Fr'nk L., 2 Baldwin
Blauvelt Clark, Curry
Brown Alpheus
Brezinski Louis F.
Barhard Henry, Torrent
Batten L. C., J. E. Owen
Cushany Warren, 117
Currie Wm., Yukon
Christensen F. E, Griffin
Costello T.
Crockett Cross, Wyoming
Carsten Chas., Helena
Chapman Fred, Centurion
Decker Mr.
Dixon Bill, Gresham
Dotsch Lester
Ellis Claud, Iron Age
Ferguson D., G. P. Peavey
Fredricks Chas., Tacoma
Fiebach Phil, Bunsen
Farley John P., R. Mills
Gladwin Mrs F.
Gilchrist Ed. O., 3 Rensselaer
Graves Geo. W., Baliza
Gerrard Wm. H.
Haavind Mrs. F. .P, Bunsen
Henderson James
Hughes James, Morse
Harrison Ernest, Wyoming
Hanse Capt., Morning Star
Hasty Arthur C., Case
June Peter, Wood
Johnson Frank
Jacobson A., Tokio
Kimball Mabel, St. Clair
Kimmerly Jas., Tacoma
Kaiser Arthur
LaRue Stanley, Resolute
Milne Wm., Wyoming
Maloney James, 2 Grenada
Munroe Donald, Tacoma
Mastin Alvoid
Morgan C. J., Swain
Morrison Geo. C.
Miller Kau, R. Emily
McRae Adam, Tower
McDonald Fred, 3 Waverly
McLaren Jos., Rees
McLennan Libbie
McIver Geo. T.
McCullough Will, 2 Bunsen
McGinnis Albert, Baldwin
McLeod C. P., Gratwick
Nicholson H. F., J. E. Owen
Northcott Geo.
Owens John, Maunaloa
Philp John R, Fulton
Peterson P. P.
Pratt Alex.
Paquin Louis
Page Jos., Tampa
Parker H. H., Griffin
Padley Newton
Premo Sarah
Patten Claude W.
Pierce Florence
Rady Wm. A.
Radigan F. B.
Root Wm., Curry
Roach Henry
Rowden Wm., Wyoming
Sias W. B., Hiawatha
Sints John H. 2 Strong
Smith F., Venus
Shafer J. F., Siemens
Stock T. W.
Shannon Wm.
Smith Mrs., Venire
Schwark Wm.
Shewman James
Szewtzki Leo, 117
Smith Wm. H., Cap. Wilson
Sarles J. D., Rosamond
Thompson Chas. O.
Thompson Hal W., Merida
Thomas Joseph, Vesta
Turk Louis R., Tacoma
Wilkinson Winfield
Wilcox Arthur
Wallace Jno., Bradley
Young John, Bunsen

F. B. DICKERSON, P. M.

MR. LOUIS COSTE, superintending engineer at the Harbor Improvement Works at Port Colborne, states that the constructors, Messrs. Hogan & MacDonnell, are making good progress with the new breakwater. The work of sinking the cribs for the breakwater, which is to be 5,800 feet in length, was only begun about ten days ago, but already five cribs are in position. It is hoped to complete the structure by the end of the season of 1902. It will be a magnificent piece of work. Dredging to a depth of 22 feet will be carried on in the harbor, so as to give 20 feet for safe navigation.

A SHIP'S LOG—ITS VALUE AS EVIDENCE.

COMMUNICATED.

In these times, when so much is heard of other sentiments than unreserved admiration of the Navy Department, it is a refreshing change to review its General Courtmartial-Order 18 of 1897, issued in the closing days of Secretary Herbert's administration, in which is a healthy ruling concerning ship's logs, recently approved by the Court of Claims. This G. C. M. O. 18, dated February 23, 1897, recites that Sailmaker Jones, U. S. N., was charged with "drunkenness," i. e. violating Art. 8, Sec. 1624 R. S., and sentenced on that charge to lose pay for a certain period, by general courtmartial at Montevideo, Uruguay, December 16, 1896. It states that this court was properly convened under Art. 38, Sec. 1624 R. S. by the "commander of squadron," that its sentence was duly approved by the latter, was "carried into execution" as provided by Art. 53, Sec. 1624 R. S., was thus no longer reversible for mere error on appeal, and could only be set aside as void. It was decided to be void because it was the second judgment for the same offense, there being no act of Congress authorizing two successive punishments by two distinct naval tribunals or magistrates for the same offense.

The fact of second punishment was held to be established by the ship's log, and the weight to be given that impartial record as against partial prosecutors or judge advocates, and mistaken subordinates, is well stated in this G. C. M. O. 18, which reads:

"Article 24 of the Articles for the Government of the Navy provides as follows: 'No commander of a vessel shall inflict upon a commissioned or warrant officer any other punishment than private reprimand, suspension from duty, arrest, or confinement, and such suspension, arrest, or confinement, shall not continue longer than ten days, unless a further period is necessary to bring the offender to trial by a courtmartial. * * No other punishment shall be permitted on board of vessels belonging to the Navy, except by sentence of a general or summary courtmartial. All punishments inflicted by the commander, or by his order, except reprimands, shall be fully enforced upon the ship's log."

The order then showed how Jones, having in view Art. 1036 of the Navy Reg. of 1896, (requiring a ship's captain to determine in ten days if an arrested subordinate is arrested for trial and not merely for the ten-day punishment permitted to be inflicted summarily by the ship's magistrate), and Art. 1052, (forbidding a longer delay than 24 hours in making this determination), pleaded in bar that the logbook Dec. 7, 1896, recorded this judgment against him: "By order of commanding officer placed sailmaker Jones under suspension for being drunk on duty;" and further pleaded that "it was not until six days later that any intimation reached him that his trial by a general court-martial was being considered." The plea further added that on December 12, 1896, the log-book recited the beginning of the process for a second judgment for the same offense, the entry being, "delivered charges and specifications for trial by general court-martial to sailmaker C. H. Jones, U. S. N., and he was placed under arrest."

G. C. M. O. 18 then continues:

"This second plea in bar amounts, therefore, to the assertion that the accused had already suffered one punishment for the offense committed before he was brought to trial; that such punishment was a legal one, duly imposed by competent authority, and that its character is established by the entry made in the log in pursuance of the last paragraph of Art. 24, reciting that the accused was 'by order of the commanding officer' placed under suspension 'for being drunk on duty.'

"It is difficult to see upon what ground any of these several points upon which the validity of this plea rests can be assailed, unless it can be claimed that the suspension entered in the log was not a punishment. The language of the entry reciting that suspension, fairly interpreted, seems necessarily to mean that the suspention it records was a punishment for the offense specified. All entries made in the log are, under the Regulations, (Article 414) submitted to the captain for his examination, daily, and if the language used in this case did not express correctly the purpose and intent of his order, it should have been corrected. It would have been easy and obviously proper to make the entry in the log show that the suspension ordered was 'to await trial by court-martial,' as is customary when such is the purpose of the suspension; or, 'to await action,' etc. The latter form of entry would have been particularly appropriate in this instance, if such was the purpose of the order, in view of the fact that on the date the entry was made the commanding officer telegraphed to the department asking authority to convene courts-martial. An explicit statement entered in the log to the effect that the accused was placed under suspension to await trial by court-martial, or to await action, would have relieved this case of serious embarassment.

"Finally, in considering the probable meaning of this entry, it is borne in mind that, even if it be conceded that its language is susceptible of more than one construction, the accused is legally entitled to have every reasonable doubt that may exist resolved in his favor."

Citing other naval precedents against a second punishment for the same offense, the Secretary concluded, that for the foregoing reasons "the trial, conviction, and judgment are set aside."

Many cases can be imagined where, in a hearing before boards, commissioners, or courts, established by statutes governing navigation and commerce the question of jurisdiction depends upon some entry in a ship's log. The Navy Department's decision is to the effect that the jurisdiction depends upon that fact and not upon the erroneous view which the tribunal may take of it, a decision supported by many U. S. Supreme Court decisions. It is a ruling moreover that an entry in the log-book by an impartial witness (in this case the officer-of-the-deck) contemporaneous with the event referred to, has a higher value as evidence than the possible partial entries of the prosecuting judge-advocate of the court-martial at a later date and which may depend upon mingled hearsay and mistake. In a future chapter it will be shown how this ruling has been sustained by the Court of Claims in a decision at its present term, not yet published. Concerning the invalidity of a judgment unauthorized or prohibited by statute the U. S. Supreme Court say, in Murphy v. Mass. 177 U. S. 160, that it is "a fundamental principle that no man can be twice punished by judicial judgments for the same offense." Thus the court affirms that the Navy Department was right in maintaining the possible jurisdictional force and effect of a ship's log.

GEORGE F. ORMSBY.

Washington, D. C.

STATEMENT OF THE VISIBLE SUPPLY OF GRAIN.

As compiled by George F. Stone, Secretary Chicago Board of Trade, September 14th, 1901.

CITIES WHERE STORED.	WHEAT. Bushels.	CORN. Bushels.	OATS. Bushels.	RYE. Bushels.	BARLEY Bushels.
Buffalo	1 115.000	1,258 000	238,000	37.000	199,000
Chicago	4,856 000	7,029.000	1.747.000	255.000	21,000
Detroit	345 000	61.000	147,000	181,000	11,000
Duluth	2.584.000	633,000	477,000	432.000	241,000
Fort William, Ont	475 000	.....	.....	.....	.....
Milwaukee	111 000	342,000	486.000	3?,000	37,000
Port Arthur, Ont	23 000	.....	.....	.....	.....
Toledo	769.000	636,000	1,147,000	383,000	5,000
Toronto	1?,000	.....	.....	.....	2,000
On Canals	531,000	533.0?0	611,000	.....	60,000
On Lakes	2,351,000	469,000	481,000	52,000	295,000
On Miss. River	.....	.....	.....	.....	.....
Grand Total	30 872,000	12,502,000	8.475.000	1,618,000	1,125,000
Corresponding Date, 1900	53,927,0?0	5,602,000	10,347,000	794,000	653.000
Increase for week	2,432,000	.....	1,097 000	.....	462,000
Decrease " "	.....	621,000	.....	27,000	.....

While the stock of grain at lake ports only is here given, the total shows the figures for the entire country except the Pacific Slope.

THE White Pass & Yukon Ry. is experimenting with petroleum from Bakersfield, Cal., as fuel on its Yukon steamers, plying between White Horse and Dawson. The fuel agent estimates that the use of oil will effect a saving of at least 50 per cent. over the present cost of wood at $5 to $8 per cord. The oil will cost only 30 cents per barrel at Bakersfield, making the chief cost its transportation, nearly 3 000 miles to Dawson. If the experiment proves to be a success, supply tanks will be built at several points along the Yukon between White Horse and Dawson.

Shipping—Cargo Damage—Unseaworthiness Due to Improper Loading—Harter Act.—Neither section 1 nor 3 of the Harter act relieves a shipowner from responsibility for the unseaworthy condition of the ship, due to her improper loading, which renders her topheavy and unstable to such an extent as to make her unfit to encounter the ordinary perils of navigation which should reasonably have been anticipated during the voyage. The Oneida, 108 Fed. Rep. (U. S.) 886.

THE TOPOPHONE.

The United States Government has established 393 fog-signals, 120 bell buoys, 73 whistling buoys, and 44 light-vessels with fog-signals on or near the shores of its navigable waters. Other nations have similarly guarded their coasts. Every vessel that floats is required by law to carry some kind of a fog-signal. In addition, there are other sounds, such as echoes, breakers, etc., whose direction the mariner needs to know to prevent accident. The topophone has been devised to accomplish just this thing, and also to hear sounds at greater distances than is possible with the unassisted ear. With its use the mariner can determine the direction of any sound before it can be heard without the instrument. The topophone is simple in construction, light in weight, portable, can be used in any part of the vessel, and any one with normal hearing can soon become proficient in its use.

It consists of two acoustic receivers or trumpets, pointing in opposite directions and supported on a vertical shaft. From the lower ends of the trumpets extend rubber tubes connected with the ears by specially constructed ear pieces. The observer holds the shaft so that the instrument is above his head; if a sound is heard in either ear—the right ear for example—it shows at once that the sound must be somewhere on the right-hand side. If he then turns to the right until the sound is heard in the left ear, it shows that he has passed the direction of the sound. If he then oscillates the trumpets so that the sound is heard alternately in each ear, the sound will be in a direction inside the angle of oscillation; this angle generally is about one point of the compas. The whole operation is simple, and the above operations take but a few seconds.

As soon as the direction of the sound is ascertained, the observer can keep the topophone pointed in its direction, and, knowing the speed of the vessel and its course, the location of the souud can be quickly plotted accurately enough for all practical purposes. The topophone is the invention of Lieutenant-Colonel D. P. Heap, engineer of the Third Light-House District, Tompkinsville, N. Y.

Prof. Mayer, of the Institute of Technology, Hoboken, N. J., invented an instrument to determine the direction of sound to which he also gave the name "topophone."

The following is the description of it, taken from the Scientific American Supplement of July 4, 1885:

"Briefly described, the topophone consists of two resonators (or any other sound receivers) attached to a connecting bar or shoulder rest. The sound receivers are joined by flexible tubes, which unite for part of their length, and from which ear tubes proceed. One tube, it will be observed, carries a telescopic device by which its length can be varied. When the two resonators face the direction whence a sound comes, so as to receive simultaneously the same sonorous impulse, and are joined by tubes of equal length, the sound waves received from them will necessarily reinforce each other, and the sound will be augmented. If, on the contrary, the resonators being in the same position as regards the source of sound, the resonator tubes differ in length by half the wave length of the sound, the impulse from the one neutralizes that from the other, and the sound is obliterated.

"Accordingly, in determining the direction of the source of any sound within this instrument, the observer, guided by the varying intensity of the sound transmitted by the resonators, turns until their openings touch the same sound waves simultaneously, which position he recognizes either by the great augmentation of the sound (when the tube lengths are equal) or by the cessation of sound, when the tubes vary so that the interference of the sound waves is perfect. In either case the determination of the direction of the source of the sound is almost instantaneous, and the two methods may be successively employed as checks upon each other's report."

Prof. Henry Morton, of the same Institute, experimenting with this instrument, says:

If the surface of a sound wave were always truly spherical, this instrument might locate its direction with a fair degree of accuracy, but this surface is frequently deformed, sometimes to the extent of being a curve of double curvature, and in such a case the instrument would be fatally misleading.

In addition, it is necessary that all fog-signals should be tuned to one note to made this instrument effective, as it will not locate any sound not tuned in unison with it.

A CONTRACT has been made by Baron Ferzon, Russian naval attache at Washington, with the Lidgerwood-Miller Marine Cableway Co. for the installation of its system for coaling at sea on the battleship Retvizan, now under construction at Philadelphia.

SHIPBUILDING, BY GEORGE W. DICKIE.

Mr. George W. Dickie recently read a paper before the Society of American Naval Architects, from which we take the following:

Granting, therefore, says Mr. Dickie, "that there is nothing lacking in skill on the part of our designers, how are we in regard to the second factor in the problem of competition, that of the cost of labor? This is the one factor that presents the greatest difficulty in dealing with the problem of relative cost as between the shipyards of Great Britain and those of America. We work under different conditions in regard to a large portion of the work. The whole steel work of a ship may be done under the piece-work system in Britain, the price per unit being fixed for certain shipbuilding districts between the shipbuilders and the unions representing the men. This method has its advantages, as it simplifies the estimating—a certain known portion of the work having a certain fixed value. While a considerable portion of the work with us is done on some piece-work system, every yard appears to have its own way of fixing prices with the men. In the British yards, as with us, while practically all the steel work is done under some kind of piece system, yet on inquiry it appears that it is with them very much as it is with us; the number of men on wages on the very work supposed to be done by piece is greater than that of the piece-workers, and skill in management is directed to the reduction of the number of men on wages as compared to the number on piece work.

"I find that on an average the steel work of construction costs in the British yards from £3 17s. to £4 (in our money $18.67 to $19.40) per ton of material worked. This I think we can about equal in labor cost here. But when it comes to fitting out, including carpenter and joiner work, painting, and general finish, where piece-work does not cut any figure, the cost, I think, is directly as the wages paid, and where we are paying 50 per cent. more wages, the cost of labor that is reckoned in wages will be 50 per cent. more here than it is in the British yard. And if half the labor cost for any given ship built in a British yard is paid in wages—and this is very nearly correct—and that half costs 50 per cent. less than the corresponding part in our yards, our total labor cost will be 25 per cent. greater than theirs. This is very nearly correct, as tested by comparisons.

"In regard to the cost of material, I am afraid that in this part of my subject it is beyond my ability to satisfactorily compare our conditions with those of the British or European shipbuilder. The most important material affecting the cost of shipbuilding is steel, and the tremendous fluctuations that at times take place in the price of that material in this country, is the most serious question we have to contend with in trying to predict anything in regard to the future of shipbuilding in this country. The tariff on steel plates and shapes makes it possible for us to find the British shipbuilder working into his ships American steel from Pittsburg at a less cost to him than the English material, and at less cost than is charged the American shipbuilder for the same material in Pittsburg. I saw in a yard on the east coast of Scotland steel being worked into a vessel, that was delivered in the yard from Pittsburg at less than £7, 2s. 6d. ($34.55) per long ton. If the American steel manufacturers can meet the British steel manufacturer on equal terms in the British shipyards, somehow it seems as if it might be possible for the American shipbuilder to get his steel material as cheap as the British shipbuilder gets his. This is all that I possibly can advance on this part of my subject. As the duty on steel of this character is not a protective measure, and cannot possibly produce revenue, it should not be maintained to render wild fluctuations in price possible. I may be wrong, however, as to the cause of the immense variations in the price of steel here, but think I am right in saying that such conditions relative to the most important material he uses are a great obstacle to the progress of the shipbuilder in this country.

"Engine and other forgings cost more with us than they do in Britain and Europe. In ordinary forgings of steel this difference is from 30 to 50 per cent., and in high grade forgings, such as are required by our navy department specifications, there is no comparison. The usual extra charge for nickel steel forgings in Britain is £4 ($19.40) per ton extra for each 1 per cent. of nickel in the steel. I did not find nickel steel forgings being used at all in merchant work.

"On the whole, I think the British builder has an advantage over the American builder in the cost of material. This applies even to the wood used. As near as I can judge at the present time there is 10 per cent. in the cost of material in favor of the British shipbuilder as compared with the cost of material in American yards.

"From the foregoing, if the statements I have made are correct, we are not yet in a position to compete with the shipbuilders of Britain or Europe—Europe meaning Germany only, I think, in this connection—the difference between us being not less than 15 per cent. on the finished ship."

It is possible that Mr. Dickie's estimates are correct as applied to the cost of labor and materials in the north in comparison with European conditions, but is it not possible to meet those competitive conditions in the south? A canal giving the Birmingham iron and coal producing district a direct and short water route to the gulf would enable us to lay down the material, including lumber, at Mobile cheaper than at any other seaport in the world. In regard to labor, the negro labor of the south can compete with Europe most successfully, and the negro could be utilized for accomplishing at least two-thirds of the work. It is unfortunate that Mr. Dickey did not fully investigate conditions existing in the south before he boldly announced to the world the inability of the United States to successfully compete with Europe in the shipbuilding industry.

WHAT IS LLOYD'S?

In reading the daily and weekly papers one often runs against the term "according to Lloyd's," but it is probable that very few know the extent of Lloyd's functions in the insurance world. Hence it is that an article which recently appeared in Ainslee's Magazine is practically apropos as helping to answer the question, What is Lloyd's? Thus, the writer of the article, S. A. Woods, says most members of Lloyd's carry on business as brokers or underwriters on their own responsibility. As a corporation Lloyd's assumes no financial liability for the failure of any of its members or subscribers. But it admits to membership, only men of reputation and means, who must deposit a pecuniary guarantee in order to become an underwriter and underwriting member, an annual subscriber or an associate. An underwriting member must deposit with the committee of Lloyd's £5,000 or £6,000, on which he receives interest, and which may be returned to him three years after he ceases to be an underwriting member. He pays an entrance fee of £4,000 and an annual subscription of 20 guineas. An annual subscriber pays no entrance fee, but an annual subscription of 7 guineas. An associate member pays 5 guineas.

There were in 1771 only seventy-five subscribers to Lloyd's. There are now nearly 1,000. The subscribers in the olden time, as now, did not confine themselves to marine insurance. They were willing to take a risk on almost anything. There is still preserved at Lloyd's a policy on the life of Napoleon Bonaparte for one month at a premium of £3 3s, per cent. Bank deposits are insured in Lloyd's; also race horses and the lives of threatened monarchs. An odd case was the covering of a risk on a glass bed packed in twenty cases for for a certain Sultan.

Lloyd's insured the Prince of Wales's jubilee stamps, guaranteeing that the issue would be successful. The voice of a prima donna has been insured. A tradesman in a London street, who has an impression that a monument may fall on his shop, has taken out a policy at the nominal premium of 2s. 6d. per cent. Gate money for cricket and football matches, animals of all sorts, ashore and afloat, are subjects for insurance. Policies against twins is a favorite form of insurance. A well known underwriter is said to be always ready to lay a thousand to one against twins.

Lloyd's issues insurance against burglary. Elephants are insured regularly. The life of the great Jumbo, who came to New York on a Monarch Line steamship, was insured in Lloyd's for the voyage to New York. His life was not insured when the life was knocked out of him by a locomotive on an American railroad, whose tracks he was crossing. A celebrated singer recently took out an insurance in Lloyd's on the life of Queen Victoria. She paid a big premium on account of the age of the Queen. The reason the singer did this was because her contract to sing would have been abrogated by the Queen's death, which would have plunged England into mourning and prevented the singer's appearance in opera.—Bradstreet's.

THE Cramps, of Philadelphia, are building two steamers for the International Navigation Co. These vessels, which will be known as the Kroonland and the Finland, are of 18,500 tons displacement each, 560 feet long, and will have accommodations for 570 first-class passengers.

SHIPPING AND MARINE JUDICIAL DECISIONS.

(COLLABORATED SPECIALLY FOR THE MARINE RECORD.

Shipping—Charter Party—Construction.—The construction of a charter party of a vessel for a voyage for a certain time, with the privilege of an extension thereof, is for the court, and not for the jury. Flagler vs. Hearst, 70 N. Y. (Supp.) 956.

Shipping—Liability for Negligence of Pilot.—A shipowner is not liable for injuries inflicted exclusively by negligence of a pilot accepted by the vessel under New York laws 1882, chap. 410, by which the acceptance of such pilot is made compulsory. Homer Ramsdell Transportation Co. vs. La Compagnie Generale Transatlantique. 21 Sup. Ct. Rep. 831.

Evidence—Admissibility.—Where a charter party of a vessel for a period of six weeks specifies that it is for a voyage to the West Indies, and gives the charterer the privilege of taking an extension, its uncertainty as to the time of such extension authorizes the admission of parol evidence of the negotiations leading to the execution of the contract in a suit for a conversion in failing to return the vessel by a certain time. Flagler vs. Hearst, 70 N Y., Supp. 956.

Pilots—Negligent Service—Liability of Pilots' Association.—The Pilots' Association of the Bay and River Delaware, which is an unincorporated association of pilots, whose objects are limited to the management of pilot boats and the furtherance of the interests of its members in various ways, but which has no power to make contracts for pilotage, its members acting individually in that matter, does not stand in the relation of principal as to such contracts, and is not liable for the negligence or fault of one of its members in the performance of a contract made by him for such service. The City of Dundee et al., 108 Fed. Rep. (U. S.) 679.

Collision—Anchorage Outside of Designated Grounds—Negligence.—The regulations of the port wardens of Philadelphia, providing that "vessels shall be allowed to anchor" in designated parts of the Delaware river, are permissive and directory, and, while the defiant or needless disregard of them by a vessel would be evidence of negligence, there may be circumstances under which a ship is justified in anchoring outside of the designated grounds, without being chargeable with negligence; as where, in the judgment of an experienced pilot, they are so fully occupied that a place outside is safer, and other ships are also anchored outside, and in the vicinity of the place selected. The City of Dundee et al., 108 Fed. Rep, (U. S.) 679.

Shipping—Proceeding to Limit Liability—When Maintainable—Single Claim.—A proceeding in admiralty for limitation of liability under Rev. St. §§ 4284, 4285, should not be entertained where there is but one known claim, and the nature of the accident or loss makes improbable any other, and where the petition neither avers a belief in the existence of any other claim, nor shows any grounds for apprehending any other. In such case the statutory limitation of liability is effectually available as a defense under section 4283, by answer in the action on the single claim; and such procedure not only avoids the expense of the special proceeding, but preserves the plaintiff's right of jury trial, which should not be interfered with any further than necessary to effectuate the purpose of congress. The Eureka No. 32, 108 Fed. Rep. (U. S.) 672.

Extension—Conversion—Sufficiency of Evidence.—A vessel was chartered to the defendant for a voyage to the West Indies for a period of six weeks, with the privilege of extension. There was evidence that the vessel was chartered for a particular voyage, and a bond was executed requiring the return of the vessel at the expiration of the charter party. One extension for one month was granted, and before the expiration the owner demanded the return of the vessel at such time, and the defendant received notice thereof when the vessel was at a point that it could have been returned by that time; but he failed to return it, but used it as a dispatch boat for some months thereafter. Held sufficient to show a conversion of the vessel at such date, since the privilege of extension only entitled the charterer to an extension for the voyage for which the vessel was originally chartered. Flagler vs. Hearst, 70 N. Y. Supp. 956.

Judgment—Res Judicata—Admiralty Suits in Rem and In Personam.—A decree dismissing a libel in rem against a vessel to recover for repairs does not constitute an adjudication of the nonliability of the owners who, under admiralty rule 12, could not be joined as defendants in such suit, and did not intervene therein, unless it clearly appears from the record that such issue was not only raised, but decided, since its determination was not necessarily involved. Where the opinion of the court shows that the decree was based on a finding that the contract was not made with the master as alleged, but with the owners under circumstances which did not entitle libelants to a lien, an expression of opinion therein that libelants agreed to wait for payment from the earnings of the vessel, which was a question not material to the decision, does not render the decree conclusive upon that question when pleaded in bar of a subsequent suit against the owners, or offered in evidence as an estoppel. Morris et al vs. Bartlett et al., 108 Fed. Rep. (U. S.) 675.

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CLEVELAND, O., SEPTEMBER 19, 1901.

"It is God's way, His will be done."

IN MEMORIAM.

WM. McKINLEY,

Twenty-fifth President of the United States,
Died
Saturday, September 14, 1901.

MORE than usual care will be exercised against the pernicious custom of "log rolling" in the preparation of the river and harbor bill which is to be introduced in the House next winter.

THE New York Ship Building Co., Camden, N. J., lying opposite Philadelphia, Pa., is now one of the most important shipbuilding yards in the country. Work is at present being done upon ten large steel hulls and their engines, boilers, etc.

LLOYD'S REGISTER statistics are quoted as showing that during the last three months while 224 vessels were removed from the list from various causes only 177 were launched. This looks like a loss, but it is only a sign of the evolution that is going on in the marine world. The 177 vessels are reported to have four times as great a tonnage as those that ceased to be available. This is the day of big and speedy carriers of both cargoes and passengers, and slow, small craft are fast becoming obsolete.

ALL the recent triumphs of marine engineering to shorten the length of the voyage between here and the old world have not cut off at a stroke so many hours as the invention of wireless telegraphy. Thus the run is shortened, in the sense of a break in the lack of communication with the shore and of the lack of news of the day, by nearly or quite 24 hours. With messages flying after a ship when she sails, and with other messages to meet her while still 200 miles from her port, the feeling of being alone with the sea is one to be experienced for only a little more than four days while crossing the Atlantic ferry.

THE recent meeting at Milwaukee of the officials of the Weather Bureau located in various parts of the United States has brought to the attention of the people again the valuable service that is being done by this department of the government. There is probably no other branch of the governmental service that is doing the good at the present time that is being accomplished by the Weather Bureau. Large sums of money and valuable lives have been saved on the lakes and much more on the ocean by the timely warnings of approaching danger on the part of the Weather Bureau. The people of this country owe much to the scientific gentlemen whose love for the work is more of an inducement for what they are doing than the meagre salaries they are paid by the government. Ninety per cent. of the predictions for specific localities are proven correct, while the forecasts made for a whole state or a large section of country are certainly wonderful in the nearness with which the weather is predicted.

THE policy of the combine interested in purchasing the British-owned Leyland line, or that branch of it necessary for the fulfillment of the scheme afoot, is to build upon the already established trade and prestige of the Leyland line by pushing forward an extensive and elaborate building plan which shall place in the running ships of the highest order, capable of capturing no mean proportion of the business now carried on by the great Atlantic lines, and this is no insignificant matter, supposing the subsidy bill to be carried through at the next session of Congress. It is said that immense, palatial liners and leviathan carriers are to be built and put on the route, and that passage rates are to be cut down, and indeed many other things are talked about concerning the intentions of the Morgan trust, and all of which are possible of development along the lines suggested.

IN the current number of the North American Review Mr. Boutell, a member of Congress, has an article in which the changed conditions and the possibility of shipbuilding interests being promoted by the abrogation of the Rush-Bagot treaty are dwelt upon. Mr. Boutell, however, does not advocate the entire abrogation of the understanding, and he sees that it would be unfortunate both for Canada and the United States if they began to create rival navies on the lakes, but he holds that it would be beneficial to both countries if they were to remove the present ban on the construction of naval vessels. He would maintain the provision that war ships should not be kept upon the lakes after completion unless a few training ships were permitted, and he expresses the opinion that it is not likely that Canadians would object to a reasonable change.

One of the speakers at the convention of the weather forecasters in Milwaukee urged the advisability of allowing greater latitude to the men who make up and send out the local forecasts. He said better results could be obtained if the forecasters were not held down by hard and fast rules. This is no doubt true, to a certain extent, and it is also palpable that the present chief of the Weather Bureau is well enough informed, aggressive enough to change old rules, and professionally pliable enough to adopt suggestions for the betterment of the service even to the smallest detail. It is furthermore a foregone conclusion that Prof. Moore has a better knowledge of the men and matters under his jurisdiction than any of his predecessors ever enjoyed.

WHEN well navigated and full powered steamers deliberately shape a course that lands them one on top of the other on the rock-bound coast of Cape Race it is time to learn something about the special characteristics of the locality. The total loss of eight steamers in six months and two occurring on consecutive days, leads one to inquire what particular mill race sets in towards Cape Race during thick weather, or what other distinct and special attraction lures vessels to their doom. The Newfoundland Minister of Marine ought surely to be able to suggest some measures preventative.

LAWSON, the owner of the yacht Independence, has given orders for the breaking up of his boat and the conversion of her metal into a monument to commemorate the incident of his being refused permission to enter the craft in the trial races of the New York Yacht Club for the choice of a defender of the American cup.

DETROIT & CLEVELAND NAVIGATION CO.

(MR. DAVID CARTER).

The unusual distinction of having served one company for half a century can be claimed by David Carter, general manager of the Detroit & Cleveland Steam Navigation Co.

He began at the bottom of the ladder when, in 1852, he shipped as clerk aboard the steamer Forest City, and, step by step, due to his untiring efforts and zeal, he has climbed to the top until now, after having served one company for fifty years, he is the general manager of the line and was recently selected to a similar position with the new Detroit & Buffalo Transit Co., which will be inaugurated next summer.

Mr. Carter is a self-made man, having worked hard for all he has made, striving with that same untiring effort which has marked his career from the beginning to make the most of every advantage and stopping at nothing short of success and the mark at which he has aimed.

He was born in Ohio City, now the West Side, Cleveland, February 27, 1832. When young Carter was but eight years old his father died, leaving a widow and four small children. In 1843 his mother remarried and removed to St. Clair county, Mich., where he lived, working upon a farm until 1845, when he went to Sandusky to live and worked with his uncle, Capt John M. Coyle. While there he attended winter schools, but when sixteen years old he took to the lakes and went sailing for a year in various capacities.

During the several succeeding years he filled the position of bookkeeper for various firms and acquired considerable expertness in that line, until in 1852, he went to Detroit, to accept the position of clerk on the steamer Forest City, then building for the D. & C. line. This position Mr. Carter held until 1861, when he became agent for the line, and since that time his management of the line has been continuous.

The D. & C. line, under his management, has become one of the best paying properties on the Great Lakes. When the company was reorganized in 1868 Mr. Carter was made secretary and afterwards general manager, the position which he now holds.

RIVER AND HARBOR ESTIMATES.

The Chief of Engineers, Corps of Engineers, U. S. A., has made a compilation of the estimates of the engineers for rivers and harbors improvements to be constructed during the year ending June 30, 1903. These estimates produce the following results:

Total estimates of the engineers in different parts of the country, exclusive of continuing contracts, $33,299,169; continuing contract estimates $6,289,204; under Mississippi river commission $3,695,000; under Missouri river commission $1,065,200; total $44,348 404.

The total estimates of last year were $44,292,770. The estimates of the Secretary of War including continuing contracts and the Mississippi and Missouri rivers was $33,881,317. The estimates of the Chief of Engineers and of the Secretary of War, to be made to Congress, have not been compiled.

CAPT. COLLIER RESIGNS.

Capt. W. A. Collier who has been general-manager of the Great Lakes Towing Co. since it was organized, tendered his resignation some time ago and at a meeting of the Board of Directors held at Cleveland on Wednesday it was accepted. His successor has not yet been appointed.

Capt. Collier had much to do with organizing the tug trust. With Mr. T. F. Newman, who is president and treasurer of the company, he secured options on all the leading tug lines at the lake ports. He also assisted in inspecting the boats and fixing the prices that were paid for the property. At the first meeting of the stockholders he was elected general-manager and he appointed all the local managers at ports between Buffalo and Duluth.

Capt. Collier is one of the oldest tug men on the lakes. For many years he was manager of the Vessel Owners' Towing Co. of this city, and when the Ashtabula Tug Co. was organized he was elected manager of that company also. He was always fair in his dealings with the men in his employ, and the different lines he has managed lost little time on account of labor trouble.

Capt. Collier is one of the oldest members of the Shipmasters' Association. For many years he was grand secretary of the organization and is now grand treasurer. His business during the past fifteen years has taken him to every port on the lakes, and there is not a more popular man in the vessel business.

Capt. Collier will take a rest for a few months and will probably not engage in business again until after the first of the year.

LAUNCH OF THE HURONIC.

The steamer Huronic, the largest fresh water vessel ever built in Canada, was successfully launched at the yards of the Collingwood Ship Building Co., Collingwood, Ont., last Thursday. A special train from Toronto carried a number of distinguished visitors to Collingwood to attend the launch. The vessel was christened by Miss Long, the daughter of President John Long of the ship building company. The Huronic was built to the order of the North West Transportation Co. of Sarnia, from designs by Hugh Calderwood, manager of the ship building company. She is constructed of open hearth steel throughout and is of the following dimensions: Length over all, 325 ft.; between perpendiculars, 308 ft.; beam, 43 ft ; molded depth, 27 ft. She will have accommodations for 200 saloon passengers and a large number of steerage passengers. The propelling machinery was built by Messrs. John Inglis & Sons, Toronto, from designs by their superintendent, Mr. James C. Smith, late of Chicago and West Superior. The machinery consists of a vertical triple-expansion engine with cylinders 26, 42 and 70 in. in diameter by 42 in. stroke. Steam is supplied by four Scotch boilers, 12 ft. 6 in. in diameter by 12 ft. long. The steamer is designed for a speed of 15½ miles loaded.

At the banquet after the launch of the freight and passenger steamer Huronic at the yard of the Collingwood Ship Building Co., Collingwood, Ont., last Thursday, Mr. John Long, the president of the company, spoke of the need of a bonus to stimulate for the present steel shipbuilding in the Dominion. He declared that foreign ships should have only such rights in Canada as Canadian ships have in the countries from which the foreign bottoms come. He added that it was the development in the west of Canada that had encouraged his company to take up shipbuilding. Hon. Israel Tarte, Minister of Public Works, spoke as follows :

"Canada is making splendid progress. I altogether decline to agree with those who find cause for disappointment in the last census. We are doing remarkably well. We often forget we are a young country. Confederation is only thirty years old, just long enough to have laid the foundations of this country. The launching of that noble ship is the best evidence that we are doing well. At confederation Canada consisted of small and scattered communities. We are understanding each other better and better, and Canada stands today a united nation. We invite foreign capital to Canada, provided it comes to us to stay. A few days ago I had to refuse the offer of Capt. Wolvin. I would have been unworthy the confidence of the Canadian Parliament had I done anything else. We are short of Canadian bottoms to carry Canadian trade. The present Canadian bottoms cannot carry more than 5,000,000 bushels of grain. We are short of Canadian bottoms, but we are not short of courage, and we have the spirit and enterprise and skilled labor to make good the deficiency. Let us keep cool; let us not give away our national property because we are not immediately ready to handle all our trade. Let us be for this country before everything else, and we will come out all right."

Mr. Tarte then directed some attention to the railways. He said: "The transportation question is to be solved. We are solving it by improvements. The railways will have to help us. I am glad to see here my friend Mr. Reeve, general manager of the Grand Trunk. The Grand Trunk Railway Co. is powerful, but not as powerful as the Canadian people. We are their bosses. They have their terminal now at Portland, but the time will come when the Grand Trunk will be glad to come back to Canada, because we have the shortest route to the English market. We look to them to make it the best, and the Grand Trunk will realize that as soon as the facilities of the St. Lawrence river are sufficient. We will have to spend money. Great as I am, I cannot do it without money. (Laughter and applause). Master of the administration, as I am, I cannot do it without money. The question is, will the Canadian people fully make up their minds to stand by their own country? You have heard of the possibility of the country bonusing shipbuilding. Well, for a free-trade government it is a pretty hard thing to do. The Americans have closed their doors to us. We should keep our trade for ourselves. Shipbuilding might be bonused for two or three years if enough Canadian bottoms could be built in that time to carry Canadian trade in Canadian channels. In the meantime the ports of Quebec and Montreal and St. John will be made right. Do you appreciate the magnitude of the possibilities we have in hand? Let us have a sufficient Canadian lake marine; we will be a great nation quicker than most people believe. We will make greater progress in the next ten years than in the last forty years."

Capt. Alexander McDougall spoke upon the growth of Canada's trade and facilities. He approved the system of waterways furthered by Mr. Tarte. He declared that the lake marine and ocean marine must remain separate. To unite them would not pay. There must, he said, be transhipment at the seaboard.

LAKE FREIGHTS.

Iron ore rates remain firm at former quotations with brisk chartering, everything offering being taken at going rates, and it is expected that the end of this season will show the largest amount of ore ever transported in any one year on fresh water.

Grain is not yet being moved at the lively rate anticipated, but all indications point favorably towards an active market from now on to the close of navigation. This week Duluth has been offering 2⅛ cents to Buffalo with dull chartering. Chicago, 1⅜ cents on wheat and 1¼ cents on corn to Buffalo, with vessels holding for ⅛ cent advance and a probability that the end of the week will see the advance made.

Coal chartering is brisk at former quotations, viz., 50 cents from Lake Erie ports to Lake Michigan and 35 cents to the head of the lakes. A slight advance is looked for from Buffalo as shippers are becoming eager to send west the usual winter supply, and tonnage appears not to be too plentiful.

Lumber cargoes are offered freely at the former quotations and as the time has now expired for the stated raise, an increase of 25 cents per M feet will no doubt be slated for future cargoes, though $2.50 Lake Superior to Lake Erie ports has been the steady figure. The recent hard gales prevailing over the upper lakes will have a tendency to make lumber carriers demand better rates, owing to the increased risks.

THE LATEST SUBMARINE.

Lieut. Graydon has, it is claimed, so improved the type of turbine engine that he claims to have produced a machine capable of driving ships at a 50 knot speed across the Atlantic. Associated with him are several engineers and others who should certainly know what they are about, and it is under their supervision and guidance that this marvelous engine is being developed. The greatest change, however, which this invention will effect, it is maintained, is in submarine navigation. No doubt, not the majority of marine engineers will take exception to the apparently extravagant estimates of the work to be accomplished by the machine and the boats into which it is eventually to be introduced. Along with Lieut. Graydon is Mr. Herbert Greig, of the Carnegie Steel Co. Mr. Allen E. Shiner is also working with the patentee in perfecting this revolutionary machine.

ESCAPING FROM A CRUISER.

In the Hartford affair at Port Colborne the Canadian officials were caught unawares. In explaining why Capt. Miles Barry was not prevented from running away from the $500 bill of the Canadian government for damages to a bridge in the Welland canal, Capt. Edwin Dunn of the Canadian revenue cutter Petrel, said: "If the rifle which I held in my hand when the Hartford refused to stop at Port Colborne had been loaded I would have fired one or two warning shots at the steamer. If they had not been heeded I would have aimed to kill those in the pilot house. We were caught unprepared, and the rifle I held in my hand at the time Capt. Barry was cutting the ropes was as harmless as a club. When I saw that the Hartford was going to steam out of the harbor away from us, I at once realized that we could not give chase with the Petrel. It would have taken an hour to get up steam and by that time the Hartford would be well out of our reach. We were totally unprepared for any such action on the part of the American boat, and the Hartford was gone before we had any chance to do anything."

Capt. Dunn further said that legal action would be started against the Barry brothers in Chicago to collect the bill for damage to the railroad bridge.

"Captain," asked the landlubber, "from what direction do you get a spanking breeze?" "From astern," growled the gruff old seadog, as he paced the quarterdeck.—Baltimore American.

MORE PASSENGER STEAMERS.

The Houghton Mining Journal says it is probable that next season a route will be established by the United States and Dominion line of steamers (Booth line) between Duluth and Sault Ste. Marie. The plan is to put on two new and up-to-date steamers to run the entire length of the lake, touching at all the important points and running in connection with the smaller vessels now trading along the north and south shores from Duluth and Sault Ste. Marie. In this way the company will cover pretty much the whole of Lake Superior with its fleet.

The new Booth line steel steamer Argo having proven to be wholly inadequate to accommodate the constantly increasing passenger traffic between Duluth and ports along the north shore of Lake Superior, it has been practically determined to build another steamer for that trade. The plans for the new vessel contemplate sacrificing freight room to passenger accommodations. She will be smaller than the Argo, her freight capacity being limited to 200 tons. She will have ninety state rooms, which is twice the accommodations provided by the Argo for passengers. She will also be a speedier craft, her maximum rate being eighteen miles an hour as against fifteen for the Argo, and her minimum will be fifteen miles. She will make three trips weekly to Port Arthur covering the north shore, and on two of these trips she will go around Isle Royale. The Argo now makes two north shore trips, one around the island. Her length on the water line is to be 170 feet, beam 28 feet, and molded depth 20 feet. Her draft light is calculated at 6 feet forward, and 11 feet aft. The Craig Ship Building Co., of Toledo, will construct her. The Argo will go on the south shore run, making three trips weekly.

GAMBLING ON THE LAKES.

The interesting fact has just been disclosed that there is no law which applies to gambling on the Great Lakes. The gamblers themselves have doubtless been aware of this fact for some time and this accounts for the fact that the game is allowed to flourish on many of the passenger boats that ply between Duluth and lower lake points.

A gambler, who came in on one of the boats a day or so ago and who was so modest that he refused to give his name, asserted to a representative of the News-Tribune last evening that he had been operating on the Great Lakes with a partner for the past four years and that "money had been more plentiful" this year than ever before.

"It is no trouble at all," said he, "to scare up a good game. People who patronize these boats are as a rule possessors of money and once they become interested in a game they will spend it. Those are the people we like to meet. And by the way there are any number of them this season."

"How much have you raked in so far this year?" was asked by the reporter.

"Oh, I cant't tell you just off hand," came the reply, "but here is what we did on the last trip." The gambler then produced a roll of bills as big as a man's fist and they were of various denominations, ranging from "ones" to "twenties."

The gambler pointed with pride to the fact that the United States District Attorney at Cleveland, who was recently preparing to prosecute two men for gambling, found that there was no law governing the case and he therefore was obliged to discharge the prisoners. The men, it seems, were arrested at Jackson, Mich., on complaint of one J. C. Thomas, who claimed that while coming to Cleveland on a Buffalo boat he was induced to join in a game of poker with a couple of "gentlemanly strangers." He arrived in Cleveland with very little to show but experience. The other men had the money. He immediately swore out a warrant for their arrest, and the gamblers were locked up.

A few minutes before the time set for the hearing the district attorney discovered that the men were being held illegally—that there was nothing in the federal statutes prohibiting gambling except in the district of Columbia.

"We can now look for floating gambling palaces on the Great Lakes," said the district attorney, "unless Congress passes a law on the subject."—Duluth News-Tribune.

A curious find is reported from one of the Chincha Islands off the coast of Peru. In a bed of guano an old ship's compass was lately dug up which, when cleaned, was found to be in working order. The case of the instrument is of brass and it bears the engraved inscription: "Jno. Warren, Chepeside, Citty of London, Maker, 1699." The compass has been sent to a museum in Lima.

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CONFEDERATE PRIVATEERS.

It is perhaps not generally known that the confederate privateer Sumter, which Admiral Raphael Semmes commanded before he became captain of the Alabama, and which for a time was a terror to merchantmen, was built in Philadelphia, says the Philadelphia Evening Bulletin. She came originally from the shipyard of Birely & Lynn, after models made by John W. Lynn, and her machinery was constructed by Reanie, Neade & Co. She was called the Habana when she was launched several years before the opening of the war, and was noted for her swiftness, having made a record in the Delaware river of 16 miles in fifty-eight minutes. She was built for James McConnell & Co., of New Orleans, in the Cuban trade, and soon after the civil war broke out she attracted wide attention by her operations as a privateer, which, however, were entirely eclipsed by those of the Alabama.

When the Alabama was built in the shipyards of the Messrs. Laird at Birkenhead she was known as "290," which was her number in the list of vessels there constructed. As "290" she was allowed to escape on the high seas and proceed to the Azores, and it was not until she was turned over to the command of Admiral Raphael Semmes, in the summer of 1862, that she was christened the Alabama. In all the correspondence and negotiations over the attempts to prevent her from leaving English jurisdiction she was described as "290."

More than a generation afterwards a curious coincidence happened in Philadelphia. Under the second administration of Mr. Cleveland the navy department was managed by Hilary A. Herbert, of Alabama, as Secretary, and the duty devolved upon him of giving a name to one of the battleships which the Cramps, of Philadelphia, contracted to build and which only a short time ago went into commission among the most formidable fighting ships of modern times. Secretary Herbert decided to give the vessel when she was launched the name of the state he had long conspicuously represented in Congress, although there was some expression of opinion at the time as to whether it was exactly proper to revive thus the name of a craft which had been associated with all that was most destructive in the confederate navy next to the Merrimac, and which many northerners had once regarded as an odious pirate. These objections, however, were few; and they gave way to the sentiment of sectional reconciliation. But when she was called the Alabama, the Cramps looked at their books and there, unknown to Mr. Herbert, it was found that she too was set down as "No. 290"

OIL FOR MARINE USES.

In spite of the experiments and dissertations upon the relative values of coal and oil as fuel, camparative tests are constantly made. The subject is so fascinating to engineers that they will not abandon it. A Dutch torpedo boat constructed by Yarrow & Co. was recently fitted up to burn both coal and oil as fuel, the latter being merely supplementary, to be used only when high speed is needed for a short time. The oil tank was carried on deck, so that in case of being struck during an engagement the oil would be discharged overboard instead of in the hold; steam was used to spray the oil through the burners, the loss of fresh water through this cause being slight, owing to the short time it was used. During the coal trial the boiler pressure was 150 pounds per square inch, with one-inch water pressure, the engines making 350 revolutions per minute; the speed of the vessel was 24½ knots. Oil was then admitted into the boiler furnaces, coal still being burned at the same rate as before, with the result of increasing the pressure to 180 pounds, revolutions to 365 per minute, and the speed to 26½ knots per hour. The coal burned was at the rate of 2,800 pounds per hour, and oil at 700 pounds per hour. A great advantage of this combined use of coal and oil is that the speed can be increased at once by the admission of oil, so that dirty fires are no bar to pursuit of an enemy on sight.—Scientific American.

MARINE ENGINEERING.

Mr. James M'Kechnie's paper, "A Review of Marine Engineering during the last ten years," read at the summer meeting of the Institution of Mechanical Engineers at Barrow was a most able and exhaustive one. It is of the greatest possible value, as showing the lines along which progress has been made, and also the direction in which it will be made. In summarizing the results attained during the past ten years, he said that steam pressures have been increased in the merchant marine from 158 lbs. to 197 lbs. per square inch, the maximum attained being 267 lbs. per square inch, and 300 lbs. in the naval service. The piston speed of mercantile machinery has gone up from 529 to 654 ft. per minute, the maximum in merchant practice being about 900 ft., and in naval practice, 960 ft. for large engines, and 1,300 ft. in torpedo boat destroyers. Boilers also yield a greater power for a given surface, and thus the average power per ton of machinery has gone up from an average of 6 to about 7 I.H.P. per ton of machinery. The net result in respect of speed is that while ten years ago the highest sustained ocean speed was 20.7 knots, it is now 23.38 knots; the highest speed for large warships was 22 knots and is now 23 knots on a trial of double the duration of those of ten years ago; the maximum speed attained by any craft was 25 knots, as compared with 36.581 knots now; while the number of ships of over 20 knots was eight in 1891, and is 58 now. But probably the result of most importance, because affecting every type of ship from the tramp to the greyhound, is the reduction in the coal consumption. Ten years ago the rate for ocean voyages was 1.75 lbs. per h.p. per hour; today in the most modern ships, it is about 1.5 lbs. Ten years ago one ton of cargo was carried 100 miles for 10 lbs. of fuel, whereas now, with the great increase in the size of ships and other mechanical improvements, the same work is done for about 4 lbs. of coal—a result which means a very great saving when applied to the immense fleet of over-sea carriers throughout the world. We consider these results to be eminently satisfactory. The great increase in maximum speed from 25 to 36 knots is noteworthy. The results attained in the Viper for turbine engines open up a new field for progress. We believe that the turbine engines will revolutionize naval warfare.—The Steamship.

THE New York Ship Building Co., of Camden, N. J., has now well under way three of the ships included in the important contracts it has in hand. In all, the company has 124,915 tons under contract, and of this amount ships that will aggregate 32,565 tons are already started, and one of the Atlantic transport ships, of 16,945 tons, will shortly be laid down.

EASTERN FREIGHTS.

Messrs. Funch, Edye & Co., New York, report the condition of the Eastern freight market as follows:

Extreme dullness in all directions characterizes the freight market for steam tonnage.

The fixture reported for grain from Baltimore to Rotterdam at 1s 3d is the lowest figure accepted for a full cargo for some considerable time, and whilst the regular liners from the various Atlantic ports, owing to the difficulty in securing sufficient general cargo, are willing to accept such rates 9d per qr. to Havre, 1s to Antwerp, etc., the prospects are anything but encouraging for the outside tonnage. So far there has been no marked activity in the movement of cotton, consequently chartering continues limited; the few fixtures reported being mostly old trades, and whilst room can be obtained on the regular line boats, (trading to the principal cotton receiving ports) at present figures, charter rates are bound to continue low. Timber and deal charterers show no inclination to take up further tonnage.

One steamer is reported fixed on time for a round trip to the West coast of South America, on the basis of 3s 9d per ton on d. w. c., which denotes a further decline.

Aside from some little South American lumber business and an occasional case oil charter to the Far East at the recent modification in rates, nothing of interest has occurred in the market for sail tonnage.

MARINE PATENTS.

681,706. Propelling mechanism for vessels. C. D. Jenkins, Boston, Mass., assignor to Carter, Rice & Co., same place.

681,713. Device for breaking the speed of ships. L. Lacoste, Montreal, Canada.

681,783. Drag or grapple. P. Rassmussen, Iron Mt., Mich., assignor of one-third to J. Russell, same place.

681,962. Construction of vessels. E. G. Goulhaeff, St. Petersburg, Russia.

682,027. Propulsion of vessels. H. F. Burgess, Vancouver, Canada.

680,692. Cargo steamer. Henry Burrell, Glasgow, Scotland.

680,823. Apparatus for raising and lowering ships' boats, etc. Axel Welin, London, England.

680,874. Fog horn. Llewellyn D. Lothrop, Gloucester, Mass.

680,885. Oar. Peter J. Pool, Toledo, Ohio.

681,222. Submarine vessel. John P. Holland, Newark, N. J., assignor to Electric Boat Co., of New Jersey.

681,363. Boat. Arthur E. Chambers, Kalamazoo, Mich., assignor to the Western Novelty Co., same place.

681 562. Device for cleaning ships' bottoms. James C. Middleton, East Palatka, Fla.

681,624. Mechanism for moving armored hatches, etc. William B. Cowles, Cleveland, Onio, assignor to the Long Arm System Co., same place.

681,640. Electric marine governor. Thomas P. Housden, San Antonio, Texas.

681,840. Pivot for masts of derricks. Edward F. Terry, New York, N. Y.

682,022. Fish trap. Peder M. Benseth, Fairhaven, Wash.

682,024. Cutter hear for hydraulic dredges. William J. Bradley, Philadelphia, Pa., assignor to the American Dredging Co., same place.

682,160. Swimming bag. Geo. B. Anderson, Philadelphia, Pa.

682,213. Hydraulic propeller for ships. Edmund E. Marchand, Paris, France.

682,361. Clevis. William R. Keith, Coalcreek, Tenn.

"WHAT was the proofreader fired for?"

"The yachting sharp wrote about a 'cat-rigged yawl,' and it appeared in the paper 'cat-rigged yowl.' "—Puck.

THE "BLUE RIBBON" OF THE ATLANTIC.

While the performance of the great Hamburg American Co.'s steamer Deutschland, in breaking the trans-Atlantic record, is a remarkable one, it will not attract the same attention as did the fast trips of the City of Paris, the Teutonic, the Campania and the Lucania. The Atlantic "blue ribbon" passed into the possession of the North German Lloyd's in 1897, when the Kaiser Wilhelm der Grosse made the trip in record-breaking time between New York and Cherbourg, and they retained it until last year, when the Deutschland set a new mark. The British lines have apparently given up the contest, for the only line which has added a new boat to its fleet since the Germans wrested the championship from them is the White Star. The Oceanic was not designed to make an exceptionally fast trip, but to perform the voyage at a certain rate of speed notwithstanding the weather conditions. In their new boat, the Celtic, the same idea has been adhered to. While the possession of the record is a good advertisement, it is an exceedingly costly one. Moreover, the conditions are now such that a boat might make an exceedingly fast trip and arrive outside the harbor of her destination at an hour when she could not disembark her passengers, and the valuable time, for which hundreds of tons of coal were expended, would be wasted in lying at anchor within sight of the journey's end. So the British lines have given up the speed contest and devoted their efforts to securing the arrival of their steamers with express train punctuality. The honors have been passed on to the two great German lines, and they have made a noble battle for it. The Lucania, the last British boat to hold it, left the mark for the trip at 21.81 average knots per hour. The Kaiser Wilhelm der Grosse raised it to 22.61 knots, the Deutschland took it to 23.36 knots per hour, and on her latest trips added slightly to it, making the mark 23.38 as the average speed of her run. This is just 1.57 knots per hour faster than the Lucania's record. In other words, if the Lucania traveled at the same speed as the Deutschland, she would have shortened her run by a trifle less than nine hours.

While the coal consumption of the Lucania is enormous, it is quite moderate compared with that of the Deutschland. The difference in the cost would pay a healthy dividend on the company's capital. For years the British lines have had the cream of the passenger traffic, and the speed contests of the German liners are a bit for it. So far they have not made any noticeable inroads in the patronage accorded the English lines, the Oceanic, for instance, with her magnificent accommodation, having no difficulty whatever despite her slower speed, in competing with the big German boats. How long the German companies will keep up the struggle, it is difficult to say. The North German Lloyds have now two big steamers nearing completion, with which they will endeavor to wrest the honor from the Deutschland of the rival company. The average speed of 23.38 knots per hour for a run close on 3,000 knots is a remarkable achievement, and if it can be beaten it will say much for German shipbuilders and German engineers. If British owners were inclined to give British shipbuilders an opportunity they would probably be quite equal to the occasion, but of this disposition there is at present no sign. Until some new method of propulsion is discovered which will replace the old-time screw and engine, it is probable that the German lines will be allowed to go on piling up coal bills, and accumulating all the honors which belong to the possession of the Atlantic "blue ribbon."

CIRCULATING CONDENSING WATER WITHOUT A PUMP.

A feature in connection with torpedo-boat machinery, interesting to those who are not familiar with it, is the way in which the circulating water is sent through the condenser. The speed of the vessel is so high that for anything approaching full speed the vessel is, so to speak, made its own circulating pump; in other words, scoops are fitted upon the bottom of the ship so that the motion of the vessel causes the water to flow through the condenser tubes without using any circulating pump. The result is highly efficient, and the amount of cooling surface per horse-power in torpedo-boat machinery is very low. A small circulating pump of the centrifugal type is fitted for giving an adequate circulation when the vessel is moving slowly. A rather interesting point in connection with this is the fact that at high speeds, without the scoops, not only would the water not run into the boat, but it would actually be pumped out. In some of the early boats, although scoops were fitted for the main injection openings, it had not been thought necessary to provide them for the small openings for admitting water to the ash hose. It was found at full speed that no water would come in through the hose, and the reason was not at first apparent; then it became necessary to slow down enough to let the water run in. When running at full speed it was actually possible to pump out the bilge by simply opening the sea-cock and dipping the end of the hose in the bilge.—W. M. M'Farland, in Cassier's Magazine.

INSPECTING A STEAMBOAT.

A recent Washington, D. C., dispatch said: Reports received by the Treasury Department today from Mr. James A. Dumont, supervising inspector general of the steamboat inspection service, tell of a sensational encounter which William G. Lundbeck, of St. Louis, had a few days ago with Capt. G. M. Siveley, a well-known Illinois river boatman. The department has taken the case up and, after inquiring into it thoroughly, approved the action of Lundbeck and will attempt to prosecute Capt. Sively. Capt. Sively has been in charge of the boat City of Peoria, which has been in the trade of the upper Illinois river. Recently he requested an inspection by the government and arranged to meet the inspectors at Havana, Ill., a small town on the Illinois river, about forty miles south of Peoria. The inspectors went to Havana and waited two days for the City of Peoria, which failed to arrive at the time specified in the request of Capt. Sively. Mr. William E. Lundbeck, the boiler inspector of the St. Louis office, and Mr. Archibald Gordon, hull inspector from St. Louis, were to conduct the inspection. From the reports made to the Treasury Department, it appears that the boat reached Havana late in the afternoon, and the two inspectors made a partial inspection. Capt. Sively was to make some repairs, on their recommendation, and he asked them to complete their inspection at 1 o'clock the next morning.

The inspectors claim that he did not offer them accommodations for the early part of the night on the boat, and they were obliged to cross the river to find accommodations. They refused to start the inspection at that unusual hour, but said they would visit the boat at 4:30 o'clock in the morning. This created some feeling. At the latter hour Mr. Lundbeck visited the boat and proposed to go into the boiler for his inspection. He reports that Capt. Siveley abused him and declared that he should not enter the boiler, and that he would wait with his boat no longer for further inspection.

Lundbeck reports that he started to go into the boiler in spite of the captain, and that the captain drew a pistol from his pocket and threatened to kill the inspector if he attempted to enter the boiler. The inspector withdrew from the boat and notified Capt. Siveley that a license as a master, engineer and pilot was revoked. To this Capt. Siveley replied with an inquiry as to what would happen to him if he failed to send in his license. Without further correspondence the entire case was referred to the treasury department officials.

Mr. Dumont has carefully inquired into the case, and has notified the St. Louis iuspection office that their act in revoking Capt. Siveley's license leaves him an unlicensed master, pilot and engineer, and as such he will be subject to the penalties provided by law if he attempts to navigate a craft in the Illinois river. Mr. Dumont has also found that the captain, by his interference with the boiler inspector in the discharge of his duty, has laid himself liable to the penalty prescribed in section 5447 of the Revised Statutes of the United States, covering interference with a government officer and threats of an officer in the discharge of his duty. The department officials state their intention of supporting the St. Louis officials, and have called upon the attorney general, Mr. Knox, to instruct the United States district attorney under whose jurisdiction the alleged violation of statutes occurred, to immediately commence the prosecution of Capt. Siveley.

IT has been found by some experimenting that the method of covering steam pipes with sawdust mortar is more successful if the sawdust, at the given proportions of one of lime to five of sawdust, is mixed with the quicklime just as it is slaking, says the Canadian Lumberman. The use of cotton seed hulls at the rate of one of lime to eight of hulls, mixed with air-slaked lime at any time, gives even better results. The air-slaked lime is much cheaper than quicklime. Fine sawdust is preferable to coarse, the lime causing the disintegrating of the fine particles of dust and making a practically air-tight cover. Either cover should be applied wet, and not disturbed any more than possible while it "sets."

Officers—Inspectors of Vessels—Right to Salary.—The failure of a special inspector of steam vessels to give a bond will not preclude him from recovering compensation for his services as such officer, when he has been duly appointed and taken the oath of office under the act of Congress of August 7, 1882. Glavey vs. United States, 21 Sup. Ct. Rep. (U. S.) 891.

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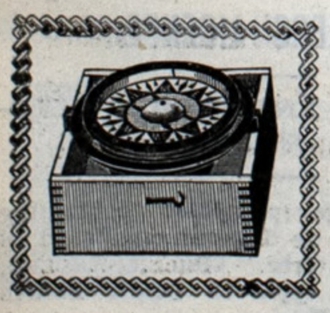

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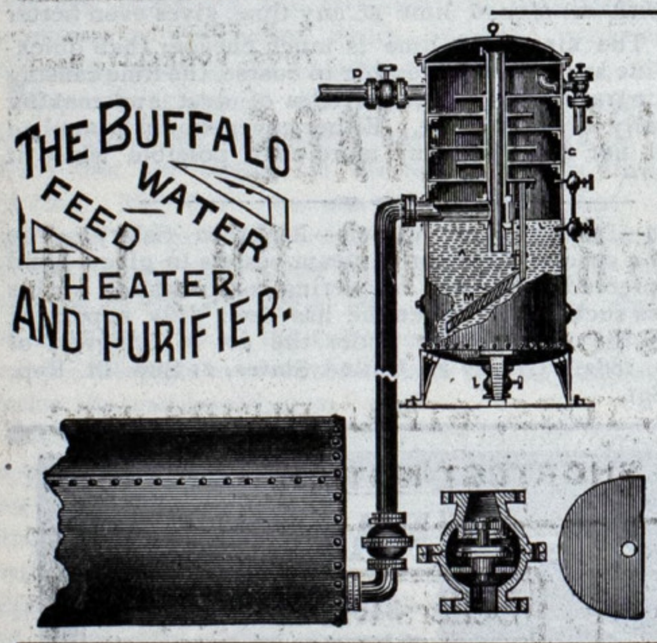

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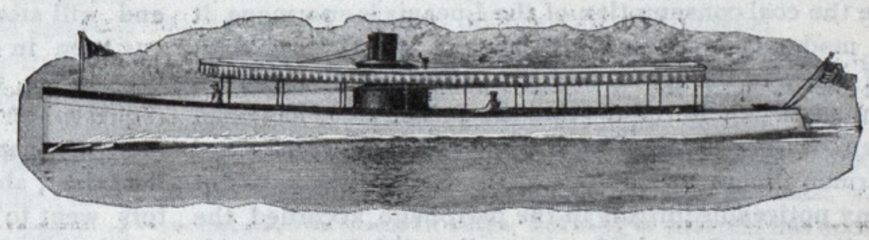

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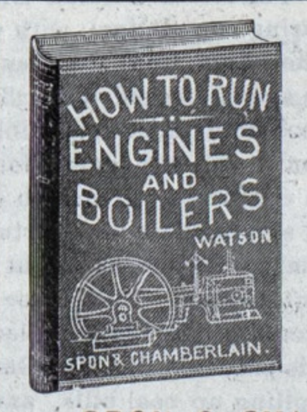

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H. W. Johns Mfg. Co., New York, and with branch offices at all the principal cities, have just issued from their Asbestos Department a neat pamphlet on "Asbestos Packings." Copies of the pamphlet will be forwarded on application.

When the schooner Rand was lost on Lake Michigan, early in the spring, carrying down Capt. Ralph Jefferson, there was a serious question as to whether the $1,000 insurance on the life of Capt. Jefferson could be collected unless the body was recovered. Weeks rolled by and all efforts to find the body failed. The order was not legally bound to pay, but the treasurer paid to Mrs. Jefferson the money in full.

The Kingston pilots are having considerable discussion among themselves in the press as to the 14 ft. channel in the St. Lawrence, and their respective abilities in taking vessels up and down. Outside the personal matters brought into correspondence by the pilots the important fact is brought out by officers of the Northwestern and the Northman, on the Chicago-European line, that neither of these boats touched bottom while going through the St. Lawrence, and that the passage from Chicago to Montreal is perfectly safe and practicable for vessels drawing 14 ft. of water. The Northwestern went aground owing to a dredge and barge blocking the channel and not because of insufficient depth of water.

In speaking of the lumber trade, Fred Schroeder, of the John Schroeder Lumber Co., Milwaukee, said: "Lumber business has been good this year, the demand steady and the prices better than for some time. In all the higher grades especially have the prices been maintained, and only in hemlock, of which there is a superabundance in the market, have the rates been weak. We shall clean up all our timber and logs tributary to Menominee and Marinette this fall, and shall hereafter get our supply from Lake Superior. We have about 200,000,000 feet of standing timber on the north shore of Lake Superior, in Minnesota, fifty miles from the Canadian border, that we are rafting to our mill at Ashland. We bought a large tug at Ashland this spring, and rebuilt the mill there, so that it is now splendidly equipped."

TREASURY DEPARTMENT,
WASHINGTON, D. C., Sept. 11, 1901.

SEALED PROPOSALS, ON SEPARATE FORMS, are invited and will be received at this department until 2 o'clock p. m., Saturday, October 12, 1901 (at which time and place they will be opened in the presence of attending bidders), for the construction of one steam propeller for the United States Revenue Cutter Service for harbor duty at Boston, Massachusetts, to be known while in course of construction or until launched as No. 9, R. C. S., and for one steam propeller for said service, for duty in the St. Mary's River, Michigan, to be known while in course of construction or until launched as No. 10, R. C. S. Said vessels are to be constructed in accordance with plans and specifications provided by the Secretary of the Treasury, which, together with forms of proposals, contracts, etc., may be obtained upon application to this department. Bids must be addressed to the Secretary of the Treasury, and be endorsed on the envelope "Proposals for Steamers for Revenue Cutter Service." The right is reserved to reject any or all bids, and to waive defects if deemed for the interest of the Government so to do.

(Signed),
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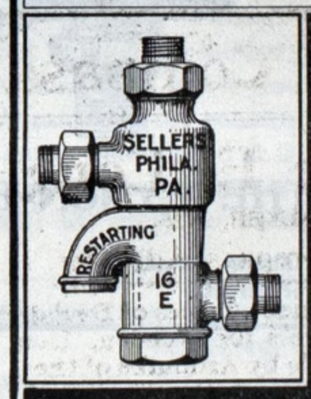

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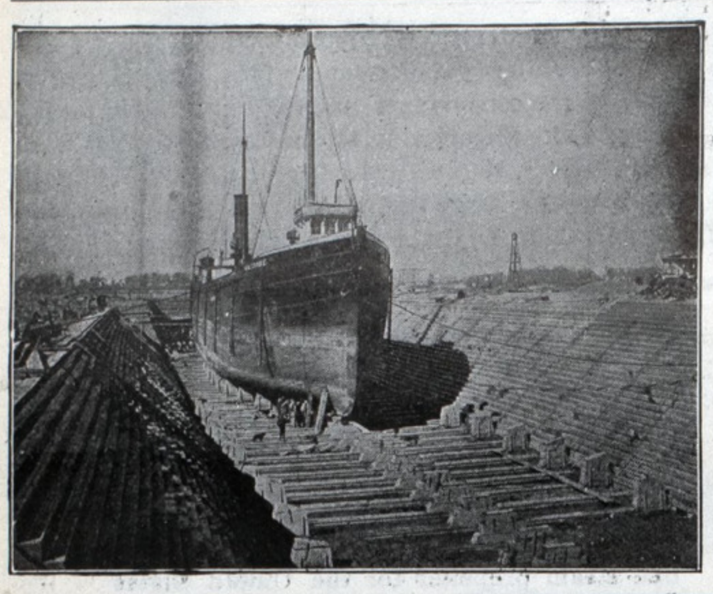

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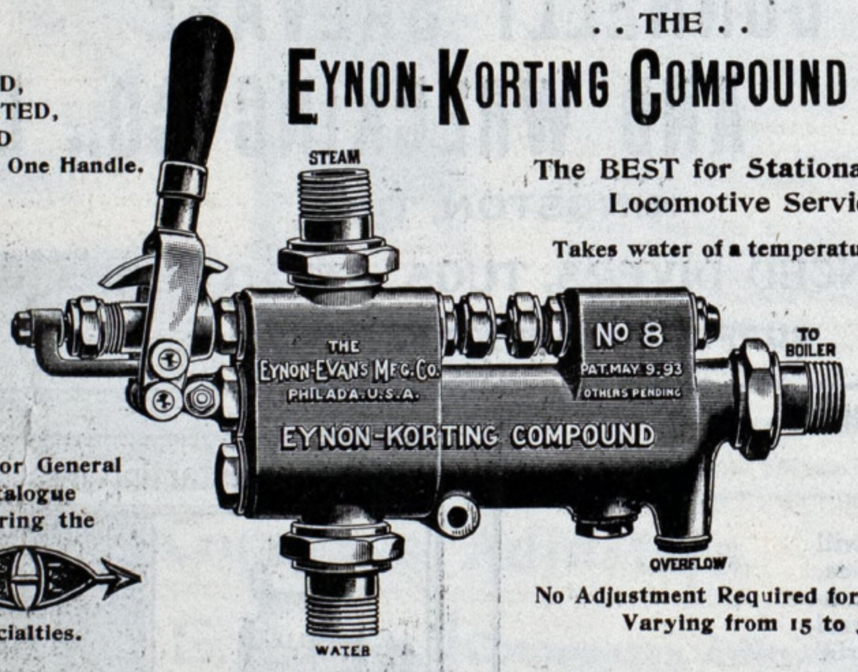

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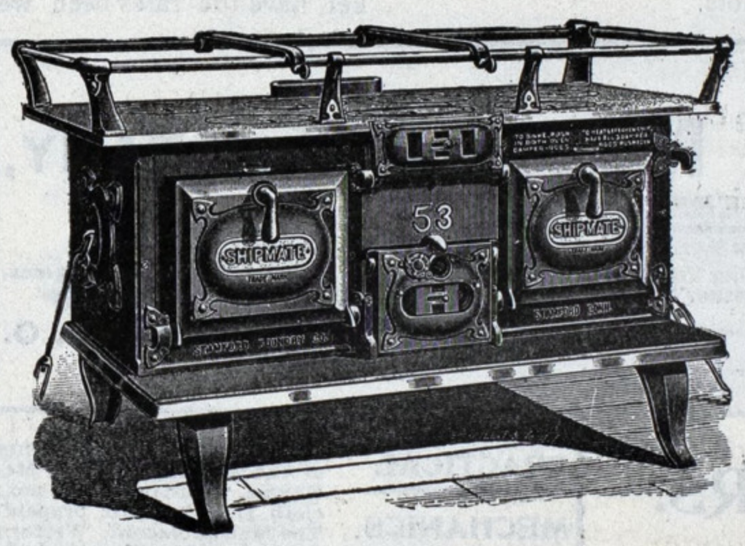

SHIPMATE RANGES.

This range is extra heavy in parts where weight is needed to withstand strong heat or severe strain; the other parts are lighter, but amply heavy for their position and use.

It is warranted to work perfectly.

The Tinnerman Steel Range Co., 797-803 Lorain Street, Cleveland, have a full assortment of these ranges, and can fill orders for any size. They are sold also by

Robt. C. Bialy, 923-925 Water St., Bay City, Mich.
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